1. [–/1 Points] DETAILS SCALCET9 3.3.007.

Differentiate.

$$y = \sec(\theta)\tan(\theta)$$

$y' =$

2. [–/1 Points] DETAILS SCALCET9 3.XP.3.009.

Find the derivative of the function.

$$f(t) = t\cos(t) + t^2\sin(t)$$

$f'(t) =$

Need Help? Watch It

3. [–/1 Points] DETAILS SCALCET9 3.XP.3.024.

Find an equation of the tangent line to the graph of the given function at the specified point.

$$f(x) = 5e^x\cos(x), \quad (0, 5)$$

$y =$

4. [–/2 Points] **DETAILS** SCALCET9 3.XP.3.027.

Let $g(x) = x \sin(x)$. Find $g'(x)$ and $g''(x)$.

$g'(x) =$

$g''(x) =$

Need Help? Watch It

5. [–/1 Points] **DETAILS** SCALCET9 3.3.045.

Find the limit.

$$\lim_{x \to 0} \frac{\sin(7x)}{3x}$$

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6. [–/1 Points] DETAILS SCALCET9 3.XP.3.018.

Find the limit.

$$\lim_{t \to 0} \frac{\tan(12t)}{\sin(3t)}$$

Need Help? Watch It

7. [–/1 Points] DETAILS SCALCET9 3.XP.3.011.

Differentiate.

$$y = \frac{3 - \sec(x)}{\tan(x)}$$

$y' =$

8. [–/1 Points] DETAILS SCALCET9 3.XP.3.013.

Find the limit.

$$\lim_{x \to 0} \frac{\sin(8x)}{\sin(9x)}$$

9. [–/1 Points] DETAILS SCALCET9 3.XP.3.003.MI.

Differentiate the following function.

$$y = 5\csc(x) + 4\cos(x)$$

$y' =$

Need Help? Master It

10. [–/1 Points] DETAILS SCALCET9 3.XP.3.004.

Differentiate the following function.

$$g(t) = 9\sec(t) + 5\tan(t)$$

$g'(t) =$

11. [–/1 Points] DETAILS SCALCET9 3.3.001.

Differentiate.

$$f(x) = 8\sin(x) - 3\cos(x)$$

$f'(x) =$

12. [–/1 Points] **DETAILS** **SCALCET9 3.3.004.**

Differentiate.

$$y = 7\sec(x) - \csc(x)$$

$y' =$

13. [–/1 Points] **DETAILS** **SCALCET9 3.3.011.**

Differentiate.

$$H(t) = \cos^2(t)$$

$H'(t) =$